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Subject: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Sun, 01 Jul 2012 10:57:19 GMT

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After talking to StealthEye he told me that ::Grant() isn't jump hooked to the FDS' function, instead the function calling them being replaced completely (::Think() for both IIRC), and it seems to be the same for C4GameObj::Detonate().

Could a jump hook for the FDS' original functions for these replacements be added, so I can grab the address of 4.0's replacement functions in memory by checking the JMP at the start of the original functions?

PowerupGameObj::Grant() is at 0x006F1100  
and C4GameObj::Detonate() is at 0x0070BE90

I'm not sure if the 4.0 replacement functions are called in 4.0's replacement ::Think().

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Sun, 01 Jul 2012 11:05:04 GMT

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BTW these functions also aren't call-able from an SSGM plugin.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Mon, 02 Jul 2012 17:23:39 GMT

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bump

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [StealthEye](#) on Mon, 02 Jul 2012 18:25:27 GMT

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It's on the bug tracker.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Tue, 03 Jul 2012 07:42:28 GMT

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Does the TT replacement of PowerupGameObj::Think() call PowerupGameObj::Grant()? As I think actually granting can also be done with PowerupGameObjDef::Grant(), but I'm not sure.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [jonwil](#) on Tue, 03 Jul 2012 10:54:06 GMT

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I can confirm that both PowerUpGameObj::Think and PowerUpGameObj::Grant are (or should be baring bugs) 100% identical to the stock functions.

PowerUpGameObj::Grant does something like this:

```
Get_Definition().Grant( obj, this );
```

```
if ( WeaponBag != NULL )
```

```
if ( obj->Get_Weapon_Bag()->Move_Contents( WeaponBag ) )
```

```
Set_State( PowerUpGameObj::STATE_GRANTING );
```

```
if ( State == STATE_GRANTING )
```

```
Send CUSTOM_EVENT_POWERUP_GRANTED to all scripts on the PowerUpGameObj
```

Note that this is the only place in the stock code that I can find that sends CUSTOM\_EVENT\_POWERUP\_GRANTED

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Tue, 03 Jul 2012 11:26:55 GMT

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Okay, thanks that'll mean I can write a blockable powerup grant hook when a future version of 4.0 gets released.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [jonwil](#) on Sat, 14 Jul 2012 14:55:45 GMT

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ok, C4GameObj::Detonate has been hooked for the next release.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Sun, 15 Jul 2012 08:21:35 GMT

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And the other one?

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [jonwil](#) on Sun, 15 Jul 2012 09:02:45 GMT

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Given what you said about PowerUpGameObjDef::Grant, I didn't think there was a need for PowerUpGameObj::Grant

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Sun, 15 Jul 2012 09:11:59 GMT

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Well I'm not sure which of those functions gets called when a player picks up a PowerupGameObj, I know the original Think() function calls PowerupGameObj::Grant() though. From your earlier reply stating that Grant() sends the 'powerup picked up' custom, it should that's the function that should be called.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [jonwil](#) on Sun, 15 Jul 2012 10:59:42 GMT

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ok, hooked PowerUpGameObj::Grant.

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Subject: Re: PowerupGameObj::Grant() and C4GameObj::Detonate()

Posted by [iRANian](#) on Sun, 15 Jul 2012 11:06:19 GMT

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Thanks a bunch I really appreciate it.

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